

REMARKS

The Amendments

Claim 1 is amended, in response to the objection thereof, to clarify that the further listed component is a second component and that the compounds excluded from the compositions are "flavones, flavonoids or glycosides thereof other than isoquercitrin or the second component." This amendment does not narrow the scope of the claims. Claim 1 is further amended to incorporate the substance of claims 2, 3 and 12 therein, which are accordingly canceled. Also, the general term "vitamin" and the specific vitamin "ascorbic acid" are removed from inclusion as the "second component." Claim 4 is amended to conform to the other amendments and claim 7 is amended to correct an obvious grammatical error.

To the extent that the amendments avoid the prior art or for other reasons related to patentability, competitors are warned that the amendments are not intended to and do not limit the scope of equivalents which may be asserted on subject matter outside the literal scope of any patented claims but not anticipated or rendered obvious by the prior art or otherwise unpatentable to applicants. Applicants reserve the right to file one or more continuing and/or divisional applications directed to any subject matter disclosed in the application, which has been canceled by any of the above amendments.

The Claim Objection

The objection to claim 1 is believed to be rendered moot by the above amendment. It should be clear now that the scope of the claimed compositions literally require a compositions containing isoquercitrin and one of the listed "second components" but exclude those compositions which contain a flavone, flavonoid or glycoside thereof, other than

isoquercitrin or the second component.

The Obviousness-type Double Patenting Rejection

The rejection of claims 1-10, 12-14 and 26 for obviousness-type double patenting over claims 1-24 of U.S. Patent No. 6,491,948 is respectfully traversed.

It is believed that the above amendments to claim 1 overcome this rejection. The instant claims no longer recite an ascorbic acid component or other vitamins. The claims of the '948 require an ascorbic acid component as an essential feature of the patented invention. Further, the instant claims require a second component which is 5-ethyldeoxyuridine, galangin, propolis, chrysin, apigenin, luteolin, acacetin, eriodictyol, quercitrin, catechol, hesperitin, a glycoside of any of the above other components, or a carotene. The claims of the '948 patent require no such component. Applicants urge that the instant claims which do not require an ascorbic acid component but do require the discussed second component cannot be obvious variants of the patented claims which do require an ascorbic acid component but make not mention or suggestion of a component meeting applicants' second component.

Accordingly, the obviousness-type double patenting rejection should be withdrawn.

The Rejections under 35 U.S.C. §103

The rejections of claims 1-10, 12-14 and 26 under 35 U.S.C. §103, as being obvious over Abou-Karam (J.Nat.Prod.) in view of Hovi (Antiviral Research) and Bean (U.S. Patent No. 4,132,782), or further in view of Lanzendorfer (WO 96/18381) are respectfully traversed.

Abou-Karam provides a brief disclosure that isoquercitrin has some, unquantified, antiviral action against herpes simplex type 1 virus. Abou-Karam suggests no particular

compositions for antiviral activity; it suggests no effective amount of isoquercitrin for such compositions; and, it discloses no combination of isoquercitrin with any other component. Note that applicants were only provided the abstract of this article which, in contrast with the statement in the Office Action, recites nothing regarding particular compositions or amounts of isoquercitrin therein.

Hovi teaches the use of ascorbic acid solutions in the topical treatment of herpes. As discussed above, regarding the double patenting rejection, the claims no longer are directed to compositions wherein the second component is ascorbic acid. Thus, the applicability of Hovi is believed to be removed from consideration. Hovi teaches nothing regarding applicants' second component of the instant claims or combining such a component with isoquercitrin.

Bean teaches the use of an isopropanol extract of mountain ash berry for suppressing herpes simplex virus. The extract composition of Bean contains isoquercitrin and β -carotene but also contains other ingredients, including various flavonols (flavonols are a type of flavonoid); see, e.g., col. 2, lines 10-20. It is admitted in the reference that it is not known what component(s) of the extract give the composition its desired properties. Thus, the reference provides no motivation to one of ordinary skill in the art to isolate any of the components, including isoquercitrin, from any of the other components.

Looking at the combined teachings of Hovi and Bean, one of ordinary skill in the art would be motivated to isolate the isoquercitrin component from the Bean extract. However, there would be no motivation from the combined teachings to isolate the combination of isoquercitrin and β -carotene from the other flavones, flavonoids or glycosides thereof in the Bean extract. The references fail to suggest any activity or advantage of β -carotene as an antiviral or anti-herpes agent, thus, there would be no motivation to combine only β -carotene from the Bean extract with isoquercitrin. The Bean extract, itself, is not within the claimed

compositions since the claimed compositions exclude flavones, flavonoids or glycosides thereof other than isoquercitrin and the second component. There is no motivation from the art to modify the Bean extract by removing all the flavones, flavonoids or glycosides thereof other than isoquercitrin, but retain the β -carotene.

Accordingly, it is urged that the combined teachings of Abou-Karam, Hovi and Bean fail to render the claimed invention obvious to one of ordinary skill in the art and the rejection under 35 U.S.C. §103, based on such combination, should be withdrawn.

The additional consideration of Lanzendorfer with the above references also does not render the claimed invention obvious to one of ordinary skill in the art. Lanzendorfer provides a very broad teaching of compositions containing multiple types of components and a vast scope of particular components within each type of component. Amongst the components suggested are flavonoids. Lanzendorfer mentions many specific flavonoids, e.g., at col. 5, line 23, to col. 6, line 4, but there is no specific mention of isoquercitrin. Obviously, there is also no mention or suggestion of isoquercitrin combined with another specific second component, such as those of applicants' claims, and purified from other flavonoids. Lanzendorfer fails to make up for the deficiencies of the combined teachings of the other references to teach combining isoquercitrin with another particular component selected from applicants' listed second components and the exclusion of other flavones, flavonoids or glycosides thereof.

The Office Action alleges that Lanzendorfer makes it obvious to use the compositions suggested by the combined teachings of the other references in oral and topical compositions and to add UV-protecting agents thereto. Applicants question whether there is any motivation from Lanzendorfer to combine a UV-protecting agent into the compositions of the other references because the teachings of Lanzendorfer are so broad and non-specific.


Regardless, however, even if there was such motivation, the claimed compositions would not be suggested because the combined teachings of Abou-Karam, Hovi and Bean fail to suggest the base composition of applicants' independent claim.

For all of the above reasons, it is urged that the combined teachings of the cited prior art, considered as a whole, fail to render the claimed invention obvious to one of ordinary skill in the art. Thus, the rejections under 35 U.S.C. §103 should be withdrawn.

It is submitted that the claims are in condition for allowance. However, the Examiner is kindly invited to contact the undersigned to discuss any unresolved matters.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



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